09/706,574

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     (FILE 'HOME' ENTERED AT 10:52:06 ON 28 APR 2003)

     FILE 'CAPLUS, EMBASE, BIOSIS, MEDLINE, WPIDS' ENTERED AT 10:52:41 ON 28
     APR 2003
L1            52 S (ASSAY? OR DETECT? OR METHOD? OR IDENTIFY?)(3A)(LEAD? OR CAND
L2            41 DUP REM L1 (11 DUPLICATES REMOVED)
L3           472 S (INGRAM, V? OR INGRAM V?)/AU,IN
L4           479 S (BLANCHARD, B? OR BLANCHARD B?)/AU,IN
L5            50 S L3 AND L4
L6            22 DUP REM L5 (28 DUPLICATES REMOVED)
L7           901 S L3 OR L4
L8            14 S L7 AND (POTENTIOMET? OR DIBAC? OR DEPOLARIZ?)
L9             5 DUP REM L8 (9 DUPLICATES REMOVED)

     FILE 'STNGUIDE' ENTERED AT 11:01:01 ON 28 APR 2003

     FILE 'CAPLUS, EMBASE, BIOSIS, MEDLINE, WPIDS' ENTERED AT 11:01:43 ON 28
     APR 2003
L10        43288 S (MEMBRANE? OR NEURON? OR NEURAL? OR NERVE?)(3A)(DEPOLARIZ?)
L11           44 S L10 AND (DIBAC?)
L12           21 DUP REM L11 (23 DUPLICATES REMOVED)
L13            2 S AMYLOID? AND DIBAC?
L14         6256 S CNQX
L15            2 S L14 AND DIBAC?
L16        12388 S (CELLULAR OR CELL OR CELLS)(3A)(DEPOLARIZAT?)
L17           89 S (DETECT? OR ASSAY? OR IDENTIFY?)(10A)L16
L18           45 DUP REM L17 (44 DUPLICATES REMOVED)
L19            1 S L18 AND (AMYLOID? OR AGGREGAT? OR ALZHEIMER?)
L20            7 S L17 AND (CANDIDAT? OR LEAD?)

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L9 ANSWER 4 OF 5 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 2001:91304 BIOSIS
DN PREV200100091304
TI Alzheimer beta-amyloid aggregate causes membrane **depolarization** in neurons.
AU **Ingram, V. M. (1); Blanchard, B. J.**
CS (1) Massachusetts Inst Technol, Cambridge, MA USA
SO Society for Neuroscience Abstracts, (2000) Vol. 26, No. 1-2, pp. Abstract No.-299.10. print.
Meeting Info.: 30th Annual Meeting of the Society of Neuroscience New Orleans, LA, USA November 04-09, 2000 Society for Neuroscience . ISSN: 0190-5295.
DT Conference
LA English
SL English
AB Aggregated Alzheimer beta-amyloid peptide Asz1-42 acts on differentiated human hNT neuronal cells, and NGF-stimulated PC12 cells, to produce long-lasting membrane **depolarization**, as well as causing a rapid but long-lasting influx of external Ca2+ (Blanchard et al., J Alz. Dis. 2000; in press). Membrane **depolarization** was detected by the increased fluorescence of the bis-oxonol dye **DiBAC4**(3), and cytosolic calcium was monitored with the ratiometric dye fura-2. Although triggered at the same time, it seems that two distinct processes are involved, since the addition of CNQX, an AMPA/kainate channel antagonist, eliminates the calcium influx, but does not reduce the membrane **depolarization**. These findings provide a plausible model for the production of cellular dysfunction and eventual cell death of neurons in Alzheimer's disease that are chronically exposed to the neurotoxic Asz1-42.
CC Nervous System - Pathology *20506
General Biology - Symposia, Transactions and Proceedings of Conferences, Congresses, Review Annuals *00520
Cytology and Cytochemistry - Animal *02506
Cytology and Cytochemistry - Human *02508
Behavioral Biology - Human Behavior *07004
Biochemical Studies - Minerals *10069
Nervous System - Physiology and Biochemistry *20504
Psychiatry - Psychopathology; Psychodynamics and Therapy *21002
Toxicology - General; Methods and Experimental *22501
BC Hominidae 86215
Muridae 86375
IT Major Concepts
Nervous System (Neural Coordination); Toxicology
IT Parts, Structures, & Systems of Organisms
neurons: nervous system
IT Diseases
Alzheimer's disease: behavioral and mental disorders, nervous system disease
IT Chemicals & Biochemicals
beta-amyloid peptide: aggregated, neurotoxin; calcium(II) ion: influx
IT Alternate Indexing
Alzheimer Disease (MeSH)
IT Miscellaneous Descriptors
cell death; membrane **depolarization**; Meeting Abstract
ORGN Super Taxa
Hominidae: Primates, Mammalia, Vertebrata, Chordata, Animalia; Muridae: Rodentia, Mammalia, Vertebrata, Chordata, Animalia
ORGN Organism Name
PC12 cell line (Muridae); human (Hominidae)
ORGN Organism Superterms
Animals; Chordates; Humans; Mammals; Nonhuman Mammals; Nonhuman Vertebrates; Primates; Rodents; Vertebrates
RN 14127-61-8 (CALCIUM(II) ION)

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